2

WHAT IS CLAIMED IS:

This listing of the claims will replace all prior versions, and listing, of claims in the application:

- 1. (Currently Amended) An arrangement for determining a relative movement of a chassis and a vehicle body of a wheeled vehicle—(20), said vehicle body being movably connected to the chassis, havingcomprising
- a measuring entity—(1) which is arranged or can be arranged in the wheeled vehicle—(20), wherein the measuring entity—(1) is configured to measure three respectively perpendicular linear accelerations of the wheeled vehicle—(20) and at least two rotational speeds, each relating to a rotational movement or a component of a rotational movement about a coordinate axis of the wheeled vehicle—(20), wherein the at least two coordinate axes run perpendicularly to each other, and
- an analysis entity—(9) which is combined with the measuring entity—(1) and is configured operable to determine a momentary movement position of the relative movement using the three linear accelerations and the at least two rotational speeds,
- wherein the analysis entity—(9) includes comprises a calculating unit—(11) which is configured operable to calculate a plurality of momentary movement positions using the at least two rotational speeds and the three linear accelerations, and
- wherein each of the movement positions is a measure for a distance between the vehicle body and at least one wheel of the chassis.

- 2. (Currently Amended) The An arrangement as claimed in according to claim 1, wherein the measuring entity—(1) has acceleration sensors—(31, 32, 33) for measuring the linear accelerations and rotational speed sensors—(41, 42, 43) for measuring the rotational speeds, and wherein the acceleration sensors—(31, 32, 33) and the rotational speed sensors are parts of a preprepared hardware unit—(2) which is configured for installation in the wheeled vehicle—(20).
- 3. (Currently Amended) An arrangement according to claim 1The arrangement as claimed in claim 1 or 2, wherein the measuring entity—(1) is configured such that the three linear accelerations can be measured as measured variables which are linearly independent of each other.
- 4. (Currently Amended) An arrangement according to claim 1The arrangement as claimed in one of the claims 1 to 3, wherein the measuring entity—(1) is configured such that the at least two coordinate axes run perpendicularly to each other as a pair in each case.
- 5. (Currently Amended) An arrangement according to claim 1The arrangement as claimed in one of the claims 1 to 4, wherein the analysis entity—(9) includes a calculating unit—(11) which is configured to calculate the momentary movement position with reference to a spring suspension—(40, 41, 43), in particular a spring suspension which is moderated, between at least one of the wheels—(21, 22, 23, 24) of the wheeled vehicle—(20) and a vehicle body—(28).

- 6. (Currently Amended) A method for determining a relative movement of a chassis and a vehicle body of a wheeled vehicle—(20), said vehicle body being movably connected to the chassis, wherein the method comprising the steps of:
- <u>measuring</u> three respectively perpendicular linear accelerations of the wheeled vehicle—(20) and at least two rotational speeds, each relating to a rotational movement or a component of a rotational movement about a coordinate axis of the wheeled vehicle—(20), are measured in the wheeled vehicle—(20), wherein the at least two coordinate axes run perpendicularly to each other, and
- <u>determining</u> a momentary movement position of the relative movement is <u>determined</u> using the three linear accelerations and the at least two rotational speeds; wherein
- <u>calculating</u> a plurality of momentary movement positions are calculated using the at least two rotational speeds and the three linear accelerations, and wherein
- each of the movement positions is a measure for a distance between the vehicle body and at least one wheel of the chassis.
- 7. (Currently Amended) The—A method as—claimed in according to claim 6, wherein the linear accelerations are measured using acceleration sensors—(31, 32, 33) and the rotational speeds are measured using rotational speed sensors—(41, 42, 43), and wherein the acceleration sensors—(31, 32, 33) and the rotational speed sensors are parts of a preprepared hardware unit—(1) which is arranged in the wheeled vehicle—(20).

- 8. (Currently Amended) A method according to claim 6The method as claimed in claim 6 or 7, wherein the three linear accelerations are measured as measured variables which are linearly independent of each other.
- 9. (Currently Amended) A method according to claim 6The method as claimed in one of the claims 6 to 8, wherein the at least two coordinate axes of the rotational speeds run perpendicularly to each other as a pair in each case.
- 10. (Currently Amended) A method according to claim 6The method as claimed in one of the claims 6 to 9, wherein the momentary movement position is calculated with reference to a spring suspension—(40, 41, 43), in particular a spring suspension which is moderated, between at least one of the wheels—(21, 22, 23, 24) of the wheeled vehicle—(20) and a vehicle body—(28).

- 11. (NEW) An arrangement for determining a relative movement of a chassis and a body of a vehicle, said vehicle body being movably connected to the chassis, comprising:
- a measuring entity configured to measure three respectively perpendicular linear accelerations of the vehicle and at least two rotational speeds, each relating to a rotational movement or a component of a rotational movement about a coordinate axis of the vehicle, wherein the at least two coordinate axes run perpendicularly to each other, and
- an analysis entity configured to determine a momentary movement position of the relative movement using the three linear accelerations and the at least two rotational speeds,
- wherein the analysis entity comprises a calculating unit operable to calculate a plurality of momentary movement positions using the at least two rotational speeds and the three linear accelerations, and
- wherein each of the movement positions is a measure for a distance between the body and at least one wheel of the chassis.
- 12. (NEW) An arrangement according to claim 11, wherein the measuring entity has acceleration sensors for measuring the linear accelerations and rotational speed sensors for measuring the rotational speeds.
- 13. (NEW) An arrangement according to claim 12, wherein the acceleration sensors and the rotational speed sensors are parts of a preprepared hardware unit which is configured for installation in the wheeled vehicle.

- 14. (NEW) An arrangement according to claim 11, wherein the measuring entity is configured such that the three linear accelerations can be measured as measured variables which are linearly independent of each other.
- 15. (NEW) An arrangement according to claim 11, wherein the measuring entity is configured such that the at least two coordinate axes run perpendicularly to each other as a pair in each case.
- 16. (NEW) An arrangement according to claim 11, wherein the analysis entity includes a calculating unit which is configured to calculate the momentary movement position with reference to a spring suspension, in particular a spring suspension which is moderated, between at least one of the wheels of the vehicle and the body.